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EDITED BY WILLIAM HUNTING, F.R.C.V.S.

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EDITORIAL NOTES.

A correspondent sends us a private letter taking exception to our 'note' on the evidence given in the Falkirk Meat Case. He quotes a portion of the evidence to show that the truth was on one side, and leaves it to our "sense of justice to mention this in our next issue."

Now, doubtless one side was wrong, but it is hardly our duty to say which. We do not presume to judge the case, and to decide whose evidence was truthful and whose was not. We simply say that, on matters of fact, such diametrically opposite statements are quite impossible to reconcile on any explanation of greater or less skilfulness on the part of the observers. Our pages are open to either side for explanation, and meantime we do them the justice to say that their evidence was clear, consistent and spotless compared with that given by the experts in the Maybrick case.

The *Lancet* in one of its "annotations" criticises the report of the committee appointed by the Midland Counties' Veterinary Medical Association to examine the laryngeal operations performed by Professor Axe. It says "the most remarkable thing connected with the report is the reason assigned for its publication, viz., the public have been led to form such sanguine anticipations of the success of these experiments that it is right they should know they are not always successful or unattended with risk." It then points out that no one has ever said that the operation is likely to be "always successful" and quotes Dr. Fleming's last report on the Army Veterinary Department in which 59 horses are referred to and 38 said to have been cured. It then expresses a hope that in his next annual report "Dr. Fleming will be able to give the statistics of a sufficient number to justify at least an approximate estimate of its value being formed," and concludes by saying "We cannot compliment the Association on the course it has adopted in publishing a report framed on so very unsatisfactory a basis as the results of only three cases." The *Lancet* apparently forgets all the sanguine prophesies that were made and the references to a possible 90 per cent. of cures, and it takes no notice of the promises of information that have been made in *The Field* and other places, but which remain unfulfilled. Information as to the numerous operations performed on the army horses are not easily obtained. Sufficient have been done to arrive at a practically correct estimate of their value. Professor Axe is no novice—he has done many of these operations, and when such a man operates on three ordinary cases we consider the results are of great value, and compared with others done under less careful observation, almost decisive. Horses suffering from roaring are not alwsys unfitted for work: for some purposes they are as useful as sound horses, and in practice no man dare advise an operation which may do harm, and which in fifty per cent. of cases does no goed. In experimental research of all kinds no results are accepted unless they are attainable by others as well as the "discoverer;" In surgery we may be at least as exacting. The practitioners forming the Midland Association had a very practical object in watching and reporting on these three operations. Their clients frequently asked about the operation—valuable horses, making "a slight noise" but doing their daily work, were offered for operation, and it was necessary to have some test which might guide them in the advice they gave. We consider the test a fair one, and we know no way of getting a better, unless Dr. Fleming would himself offer the Midland Association a fuller opportunity for examination of horses before operation, a view of a number of operations, and facilities for examination afterwards. We cannot compliment the *Lancet* on its knowledge of equine diseases or on its estimate of the value of *three* operations On horses we consider three test operations (all unsuccessful) performed by a man who has done many previously, sufficient to discredit the procedure. How many would be required on the human subject we know not.

Dishorning Cattle is an offence in England, but not in Ireland or Scotland. At the annual meeting of the Dundee Society for prevention of cruelty to animals, held last week, the subject was discussed. Lord Strathmore, the President, in his remarks, said "He did not believe that [if the points of the horn were taken off, or even all removed but a few inches, there would be any more cruelty inflicted than in one paring his nails.' 'Mr. Leng, M.P., after stating that his lordship's opinion on that subject was of great weight," concluded that "perhaps the best plan would be merely cutting off a part of the horn" These two gentlemen are clearly honest and unprejudiced; their opinions will be widely accepted as correct, and probably many poor brutes will have a half of their horns sawn off in consequence. It is equally clear that neither speaker had any knowledge of the structure of a bullock's horn, but imagined it to be non-vascular except just at its junction with the head. The simile of "paring his nails" would be simply nonsense or worse, save on the supposition that the speaker fancied the horn was mere corneous tissue.

ARTICLES AND CASES.

ENLARGED HEART.

By H. G. Rogers, M.R.C.V.S.

Subject—An aged, well bred chestnut gelding, about sixteen hands, used as a charger.

Symptoms.—In July 1888 and again in Nov. 1889 the animal had a "bad attack." He was uneasy, looked at his flank and pawed; the ears and legs were cold. His breathing was very quick, and he showed well marked shivering fits. The pulse was very irregular, and intervals that would represent four or five pulsations occurred without a beat. The first sound of the beat was normal, but the second, instead of being short and sharp, appeared drawn out and almost running into a third sound. The two attacks resembled each other, but the symptoms were more marked in the latter. The legs were swollen for the last three or four months of his life. The groom stated that the horse had had many similar seizures, but previously they had never caused such distress. The animal being old and seldom used by the owner was destroyed.

Post-mortem Examination.—The heart was very much larger than is usual. The muscular substance appeared healthy and showed to the naked eye no sign of fatty degeneration. The auricles appeared large but otherwise the different parts of the organ were in the usual relative proportion to each other. The tricuspid valve showed a very little thickening at the margins, the thickening being *between* the reflected membrane. The organ cut away from its vessels and freed from all clots, &c., weighed 12lbs. The heart of a horse about the same size weighed just under 6lbs., and the heart of a cart horse weighed 8lbs. These three were all killed the same day and the hearts weighed at the same time.

I do not attempt to fit the symptoms to the condition found, but I thought the *weight of the organ worth recording*. We frequently talk of an organ being enlarged or diminished in size, but I fear few of us could give very definitely the standard on which our opinions are based.

INFLUENZA IN LONDON.

By Cyclops.

The article on "Influenza in London" which appeared in *The Veterinary Record* of Nov. 23rd was timely, and it seems strange that no communications have appeared from provincial practitioners in response. Let us hope this apathy on their part is not due to any lack of interest on the subject, but that they are so busy curing the complaint that they have no time to write.

There is still much to be learnt about the history of this form of disease. Where it arises, and what influences its spread are questions still undecided. Neither is it clear why it prevails in stables where the sanitary arrangements are complete as severely as in those which are badly drained and ventilated.

The writer has had no experience of the disease in London previous to the present outbreak, and therefore cannot say whether it is now more fatal and severe than in former years. He has however met with it in the country upon two or three occasions, and does not observe any difference in the form or severity of the complaint. Three forms of the disease have been observed—the complaint where the effusion seems confined to the extremities, another in which the lungs as well as the extremities are involved, and a third where the effusion is chiefly confined to the intestines. The fatal cases were those in which the lungs and bowels were involved. For treatment; salines, diuretics, tonics, and good nursing. There has been nothing contributed new or novel in character; and the object of this article is simply to keep the matter before your readers.

RABIES AND MUZZLING.

By W. H. Williamson.

I certainly think that it is high time the members of the veterinary profession began to express their opinions as to the value of muzzling as a preventive of rabies.

There is little doubt that rabies never arises spontaneously, and therefore, it appears reasonable to expect that if the Muzzling Order be strictly enforced over the *whole* country and a rigid quarantine of all dogs coming from abroad is enjoined, the disease would in a short time be unknown in this country.

But is this scheme practicable? I think that the quarantine regulation would be very difficult to carry out. Examining all dogs coming from abroad is a very different thing from examining all imported cattle. An ox cannot be smuggled ashore, but I fancy it would be a very difficult matter to be certain whether a dog, once landed on the quay, had come from abroad or not.

The Dog Muzzling Regulations as they exist are, in my opinion, perfectly inefficient. All dogs living within a certain area must be muzzled; outside that area, dogs (rabid or otherwise) may bite anything they please at their own sweet will. What good results can be expected from such an arrangement?

The regulations existing in South Germany as described in *The Record* some months ago are, I think, preferable to our Muzzling Order. There, as your readers may remember, each *dog* is licensed and when the license is granted a metal tag, on which is stamped a number, is given. All dogs which do not have this tag hanging round their neck are looked on as ownerless and taken in charge by the police. The advantages of this tag are, that unlike the muzzle, it causes no discomfort to the dog, and it also prevents dog owners escaping the payment of the dog tax, requires no exemptions, and gives no excuse for sentimental objections. Its only dis-

advantage is, that it can be worn in the house and thus, if the dog becomes rabid, though it slips unseen out of the house (as rabid dogs do) it still has its badge of ownership round its neck. This of course is not the case when muzzles are the rule: but cannot some inventive genius produce a tag of some sort which will not be worn in the house, and thus overcome the disadvantage attending this method?

THE REGISTRATION OF FARRIERS,

By "TUBAL CAIN."

I beg to send you a few comments on the scheme for the registration of Farriers. I may state at once that I entirely approve of the effort to raise the body as a class, but I have had a very wide experience of this class of workmen, and I beg you will not think that I am traducing their character too much when I state my experience.

The object is "for the promotion of technical instruction of Farriers." I may ask where are the technical instructors to come from? Are there any Farriers who are possessed of sufficient technical knowledge and the ability to impart it to others? Are there many Veterinary Surgeons who may have sufficient knowledge of the theory and art to impart by demonstration the why and wherefore of Horse Shoeing? I doubt if there are many who can tell when a shoe is properly "holed."

The method is "by Examination, Registration, Instruction. and by Apprenticeship."

Is this method to consist of merely registering the present body of Farriers, and so forming an immense Trade Union in opposition to the present Farriers' Union? If so you may depend not one hundredth part of the present farriers will offer themselves for registration or examination.

"The Executive Body is to consist of members appointed by The Farriers' Company, Royal Agricultural Society, The Royal College of Veterinary Surgeons, and the Amalgamated Farriers' Union."

I hope that a union of this strength will endeavour to see that none but eligible men are elected on the working Committee.

"Registration of all approved applicants will be undertaken by the Worshipful Company of Farriers, who will grant Certificates. Candidates shall be required to pass an examination, but men established prior to the opening of the Register may, on satisfactory proof of fitness, be registered without examination." In this I see a great difficulty, as you must either admit the disreputable ne'er-do-weels, or must examine the whole and discard them; to my mind, the best method would be to have them all up and see what sort of men present themselves, those that are worthy admit without demur, those that have brought the trade down to be a bye-word among artizans discard until they render themselves fit members for a well organized trade.

The examination by a practical man would very soon weed out the objectionables, and the granting of a certificate would be a hall-mark of respectability.

The examination need not in this initial stage be a practical one further than a few specimens in front of the examiners might be made to indicate.

The best and most easily worked of any of the clauses seems to be the Apprenticeship Fund. This will do more to raise the body of Farriers into a distinct and commendable body than any other portion of the scheme; for my experience is, that not one man in a hundred had been apprenticed—they mostly were shop boys, and from that pulled off shoes, then acted as improvers and so on. I venture to assert, without fear of contradiction, that there is not one per cent. who can tell you how many bones there are in a horse's foot, or how the nail causes the usual lamenesses. They are now highly paid and do as little work as they can for their money by "Bishoping," "Wall Fruiting," &c., and endeavour by every possible artifice to get the best of their employers.

VETERINARY MEDICAL SOCIETIES.

THE CENTRAL VETERINARY MEDICAL SOCIETY.

An Ordinary General Meeting of the above Society was held on Thursday, December 5th, at the First Avenue Hotel, Holborn. Mr. W. Hunting, the President of the Society, occupied the chair, and there were present, Messrs. Bishop, Broad, Buston, A. P. Case, Caton, Elworthy, Farrow, Gostling, Hibbard, Hurndall, Irving, Clement Lowe, T. Moore, Mulvey, Reddish, Richards, Rogers, Rogerson, Roots, Rowe, Slocock, F. W. Stanley, Wragg, and the Hon. Secretary.

Letters and telegrams were read from Professor Walley, Messrs. Roalfe Cox, Darling, of Weybridge, Hy. Edgar, J. F. Simpson, and Fitzwilliam Wright apologizing for their non-attendance.

Mr. Henry Gray of West Ham, was nominated for Fellowship of the Society.

The Secretary announced the receipt of a volume from Mr. Frank S. Billings, of Nebraska, U.S.A.

Mr. Elworthy brought under the notice of the meeting two pedal bones—one showed extensive disease the result of being run over by a truck, and the other was completely divided from before backwards the fracture being the result of the horse "picking up" a French nail.

Mr. Arthur Rogerson then read his paper on "Injuries to the Foot," (which has already appeared, see p 290).

At its conclusion,

Mr. ELWORTHY said he thought pricks in shoeing were to a great extent due to the employment of inferior men; in his own establishment where some of the farriers had been at work for twenty-five or thirty years, they rarely pricked a horse, and he was certain that with responsible and experienced farriers this kind of thing would not often occur. In his experience "corn" was rare in the hind feet

—as to "sand-crack" he did not see the necessity of opening the foot to the great extent advocated by the essayist, for he found with rest, and a blister to the coronet, the lameness usually disappeared. He was certain horses derived great benefit from the use of the Bar Shoe, and it was as good a thing as could be devised for keeping "old crocks" going.

Mr. ALFRED BROAD had no doubt that "side-bones" predisposed to corn. He had known many instances in which the appearance of an abscess at the heel was the first indication of the presence of a corn—the horses having previously shown no lameness.

In Sandcrack he had not found it beneficial to open the crack by cutting away the horn, and had known intense pain and death follow this proceeding—but he agreed that if poulticing did not afford relief the best course was to blister the coronet.

Mr. CATON had known portions of the Pedal bone exfoliate, and the horse recover. He bore testimony to the great loss of life and services from horses picking up nails and other articles, and advocated the use of a plated shoe *i.e.*, a removable piece of thin iron instead of leather soles, for he found leathers for this purpose very little good, being so often perforated by pointed articles. He was a great believer in soaking and poulticing injured feet and also in the Bar Shoe, which although it might be old fashioned he liked very much.

With reference to corns he thought there were very few horses with "Side-bones" that were not the subject of corns, and he also thought that corns were more often caused by side-bones than *vice-versa*.

Mr. ROOTS found that where six pricks in shoeing used to occur he now only got one, this in his opinion, was due to the great improvement in the quality of nails, he now used only machine-made nails, and he preferred the brands known as "The Lion" and "The Star."

In the treatment of corns he advocated the use of a three-quarter bar shoe. He had never seen a sand-crack of the sole, but he remembered the case of a horse with a fissure at the point of the toe, which occasionally gave rise to lameness as long as the animal lived.

Mr. HUNTING said it was true machine-made nails had been of great benefit; this was not the case however with machine-made shoes, they were nearly always unevenly holed, so that the farrier could not properly direct his nail. He was at a loss to understand why engineers, who were now so skilful, could not turn out horse shoes with evenly-placed nail holes.

Mr. Rogerson had alluded to the practice of workmen trying to screen themselves in cases of pricking. Some men were extremely hasty with farriers and treated a mistake as an unpardonable sin, but he had generally found such men knew little about horse shoeing. He held that a man should not be blamed unless his carelessness was proved, and a man who having pricked a horse went and told his employer, ought to be excused. Pricking was a question which often cropped up in the Law Courts, and it was a debateable point as to how long a horse could go after being "bound" or "pricked" before showing lameness. He knew that a horse having been bound by one or more nails might not show any lameness for ten days after he had been shod.

He agreed that the "Star" and the "Lion" machine-made nails were excellent, but there was another brand, the "H. P.," which, as an Englishman, he should like to believe was the best. He had noticed that the speakers who had told them that Side-Bones accompanied corns, were gentlemen whose practice lay with heavy horses; personally, he knew only little about heavy horses, but in other classes he had not found this to be the case; it was possible to produce a corn by leaving the foot uneven.

As a pupil of Gamgee, he repudiated the statement that that gentleman taught that corns were "horn tumours." He (Mr. Hunting) believed that corn was produced by the shoe only, and he did not believe in the old adage "once a corn always a corn," although it was pretty nearly true if the corn had been in existence a long time.

He questioned whether they ought not as a Society to take some practical notice of the question of "Picking up nails." When they came to consider that in one firm alone during the last six months 200 French nails had been found in the feet of horses, it pointed to the necessity of some steps being taken to keep the streets clear of such articles, for it showed great negligence on the part of those who pulled packing-cases to pieces.

In the treatment of foot cases Mr. Rogerson had rightly pointed out that expedition was greatly to be desired, and by that he meant the early detection and the early treatment of the injury. He (the speaker) believed that poulticing, in foot cases, was generally much overdone; a great deal of mischief arose from pursuing this treatment after "matter" had escaped. Mr. Rogerson had made a very sweeping assertion on the question of Bar-Shoes, but if he had men clever enough to fit ordinary shoes on all diseased feet he was quite right in making his assertion; Bar-Shoes might not be handsome, but what did that matter if they were useful? He thought, in paring feet, the more conservative they were the better. He knew men of great experience in foot cases who cut and mutilated the feet a good deal—surely this was not good surgery, one could nearly always judge as to the presence of pus in the foot without paring out every nail hole; as to sand-crack, he differed from the Essayist's opinion that it should be cut out. If suppuration and great lameness had not occurred why cut it out? If they did so they must also adopt Mr. South's plan—put something in the part again to prevent the clips of the shoe drawing the foot together and pinching the internal structures.

Mr. WRAGG having expressed his regret that he, being unavoidably late, had only heard the concluding portion of the paper, said that it was more often the fireman than the doorman who was to blame for horses being pricked; as a rule when a horse was pricked the nail-hole of the shoe was defective, although personally he always found fault with the doorman for trying to drive a nail in such

a shoe. As to machine-made nails there was no doubt they were much thinner than hand-made ones, and in addition they were polished and free from rust, which was undoubtedly an advantage.

In the treatment of Sand-crack he always adopted Mr. South's method, and with very good results—he cut out the sand-crack whether there was pus or not. If there was pus he would not put in the wooden plug for the whole extent of the crack, but would temporarily insert a short plug at the lower end of the fissure, and then poultice and otherwise treat until all suppuration had ceased, when he would have a plug inserted the whole extent of the crack; this plan of treatment was very efficacious. It was not his experience that horses with side-bones invariably had corns and he thought there was very little connection between the two diseases. In the treatment of suppurating corns he used a three-quarter shoe, but in some cases as also in other diseases of the foot he was a believer in the utility of bar shoes. The old theory quoted by Mr. Hunting "once a corn always a corn" had long since been exploded.

Mr. STANLEY had great faith in poultices for injuries to the feet. Corns were not in every case the result of shoeing or concussion on hard roads, for he once knew an unshod colt suffering from corn.

After a few remarks by Mr. Villar, in which he complimented the essayist on the very practical way in which he had dealt with his subject, Mr. Slocock said although he had never seen "corns" in an unshod colt he had seen "sand-crack," and he thought that some animals had naturally a weak kind of horn which was predisposed to troubles. In the treatment of foot cases he believed in the use of poultices until the horn was thoroughly soft.

Mr. ROWE said.—As to the length of time which may elapse before a horse showed symptoms of lamenesss after pricking, he found that if a horse was tightly bound with the nails not many hours would pass before it gave rise to lameness, usually it occurred within three days, but of course at times lameness did not supervene for eight or nine days. They could not get away from the fact that a case of pricking might occur in anyone's forge at any moment. They had to entirely rely on workmen, and the present underselling in the horse shoeing business was a mistake and conducive to pricking.

The PRESIDENT remarking the lateness of the hour called on the essayist to reply, and Mr. Rogerson after thanking the gentlemen for so readily entering into the discussion of the subject which he had introduced, proceeded in an able manner to answer the points which had been raised by the various speakers.

On the motion of the President, seconded by Mr. Caton, a hearty vote of thanks was unanimously accorded the Essayist for his very practical paper.

It was announced that at the next meeting of the Society, on Jan. 2nd, Mr. Caton would introduce the subject of "Influenza." SIDNEY VILLAR, *Hon. Sec.*

LANCASHIRE VETERINARY MEDICAL ASSOCIATION.

The usual quarterly meeting of the above Association was held at the Blackfriars Hotel, Manchester, on Wednesday, Dec. 11th. Tea at 5; business at 6.

Present: E. Faulkner, President; William Hunting, London; Messrs. T. Hopkin, Peter and W. A. Taylor, Thos. Greaves, W. Dacre, J. Moore, W. Hall and Peter Pike, all of Manchester; R. C. Edwards, Chester; W. Whittle, Worsley; Thos. Briggs, Bury; E. S. Gubbin, Glossop; W. Wood, Junr., Wigan; G. G. Mayor, Kirkham; H. Ferguson, Warrington; Thos. Dobie, Birkenhead; J. B. Taylor, Ashton-under-Lyne; Jos. Abson, and J. T. Thompson, Sheffield; W. H. Bridge, Bolton; D. Charnock, Aintree; Jas Charnock, Melking; Jos. Urmson, Bolton; George Howe, Buxton; and S. Jackson, and the Secretary, Liverpool.

Letters of apology for non-attendance were received from Professors Williams, Walley, M'Call, and Axe., H. Kidd, R. C. Trigger, W. Noar, Jas. Hart, and R. Hughes.

The Secretary read the circular convening the meeting.

The minutes of the last meeting were read and confirmed.

Mr. Joseph Abson nominated for membership Mr. J. T. Thompson, F.R.C.V.S., of Sheffield.

It was proposed by Mr. John Moore, seconded by Mr. W. Hall that Mr. George Howe, M.R.C.V.S., of Buxton, be elected a member of the Association. (Carried).

A letter was read from Mr. John Moore, tendering his resignation on account of his entering the Army Veterinary Department. The resignation was accepted with regret.

A letter was also read from the relatives of the late G. H. Darwell, of Northwich, thanking the members for their expression of sympathy under their recent bereavement.

It was proposed by the Secretary, seconded by Mr. Whittle, that a letter of condolence be sent to the father and relatives of the late George Ellison, of Chorley.

A letter was read from Professor Walley on the subject of tuberculosis being included in the Contagious Diseases (Animals) Act, and also the inspection of meat, but it was the unanimous wish of the members that Professor Walley be communicated with, with the object of inducing him to attend a meeting of the Association to lay his views down at greater length. This was put in the form of a motion by Mr. Peter Taylor and seconded by Mr. Thos. Greaves, and carried unanimously.

Mr. Peter Taylor and Mr. Thomas Greaves then gave a detailed account of their visit to the practitioners of Liverpool with the object of obtaining their better attendance at the meetings of the Association, and it was afterwards proposed by Mr. W. A. Taylor, seconded by Mr. W. Whittle, and supported by the President that a hearty vote of thanks be accorded to both for their kind efforts.

The election of officers for the ensuing year then took place.

Proposed by Mr. T. Briggs, seconded by Mr. Whittle that Mr. W. A. Taylor be elected President, which was carried unanimously.

On the motion of Mr. Peter Taylor, seconded by Mr. T. Greaves, Messrs. W. Woods, Junr., Wigan, and Arthur Leather, Liverpool, were elected Vice-Presidents.

Proposed by Mr. Peter Taylor, seconded by Mr. T. Briggs, that Mr. T. Hopkin be re-elected Treasurer. Carried.

Proposed by Mr. P. Taylor, seconded by Mr. W. A. Taylor, that Mr. Peter Pike be elected Secretary. Carried.

Proposed by Mr. T. Hopkin, seconded by Mr. P. Taylor, that Messrs. John and Alexander Lawson be appointed Auditors. Carried.

Proposed by Mr. Whittle, seconded by Mr. P. Taylor, that a hearty vote of thanks be accorded to the office bearers for their services during the past year. Carried.

Proposed by the President, seconded by Mr. T. Hopkin, that the usual dinner committee be appointed.

The following paper was then read:

THE TREATMENT OF WOUNDS.

By William Hunting, F.R.C.V.S., of London.

I accept, generally, the doctrine that the principles of pathology are applicable to all animals having a similar anatomical structure. Inflammation is the same process wherever found, and fever presents no differences in the domestic animals other than are found in man. We veterinarians are therefere able to adopt and apply all the broad principles accepted by the human surgeon. Of course we accept them rationally—not as mere imitators—and we hope and believe that our experience is, in some things, of use to them and worthy of their acceptance. But the physiological and pathological actions which are seen in man vary to some extent in individuals as the result of internal and external conditions. Sometimes idiosyncracy, sometimes previous disease modifies the pathological changes. The hæmorrhagic diathesis for instance affects the healing of wounds, and syphilitic infection alters the phenomena of many diseases. Insanitary surroundings also add to the surgeon's difficulties, and too often convert a simple condition into a dangerous and complex one. In the lower animals we are less troubled by idiosyncracies and morbid taints, but we have other difficulties to contend with. We cannot order or maintain certain favourable positions of the patient, we cannot ensure quiet and rest, we cannot always guard against injury to a painful part by the animal itself, and we cannot arrange the sanitary appliances and surroundings as we should wish.

On the other hand the sheds and stables in which our patients are treated are generally free from the septic conditions sometimes found in hospitals and occasionally in houses. We seldom have much to fear from shock, and still less frequently have we to combat the nervous depression and irritability due to mental conditions.

There is then sufficient difference between human and veterinary surgery to warrant us in discussing pathological questions without fully accepting the practice of the sister profession.

This, gentlemen is my apology for coming here to discuss the subject of the treatment of wounds with some doubts as to the value of the usual aseptic methods. Our practice, following in the wake of human surgery, seems to have very widely adopted asepticism as the great fundamental principal in treating wounds. I do not wish to deny the importance or the truth of the great principles worked out so ably by Sir Joseph Lister, but I incline to believe that they are not so requisite in veterinary surgery as in human, and I am doubtful if many of the methods of applying them are not very imperfect, and sometimes the cause of ill effects as serious as those they are employed to prevent.

The argument as I understand it is this—The very worst thing in or on a wound is a germ; the air is full of germs, the surface of the skin is covered with them, all materials that may come in contact with a wound have germs in or on them. Therefore disinfect the wound, disinfect the air, disinfect all fluids and solids which must or may come in contact with the wound. Now I take exception to this argument—I deny that all germs are injurious to a wound, and I do not believe that injurious germs are frequent in the air or common on all sorts of material. The air may, for all I know, be as full of germs as the earth is full of seeds. I am convinced all the seeds are not poisonous (many are beneficial) and I am inclined to believe that nearly all the germs in the air are harmless. It may be replied that no one has said they are *all* harmful; that the precautions of aseptic treatment are only directed against the few which may exist and which cause such grave mischief when they are present—mischief so grave that it behoves us always to guard against even the possibility of their existence.

To this I say that when human life depends upon the result no chance should be thrown away, but it should be carefully considered whether the methods adopted to guard against a possibility do not entail certain disadvantages. The results of aseptic procedure in human surgery seem to indicate that it does protect from great dangers, and that its disadvantages are very slight. Many operations are now performed with safety that a few years ago were too frequently followed by fatal results. Is this entirely due to asepticism? May it not depend upon improvements in other surgical details? These questions I cannot answer; but I doubt whether our patients can be made to experience the same improvement in the healing of wounds by our more widely and thoroughly adopting the principles of Listerism.

What we require in veterinary practice is rapid healing of a wound, no blemish that can be avoided, and as little interference with the future function of a part as possible. These desirable conditions are interfered with by many events over which we have no control. There is in all wounds a natural

tendency to heal, but nature does her surgery without any consideration for time or loss of work, with no regard to blemish, nor even to future impairment of function. It is our duty to guide the process, and to remove anything which interferes with its progress. Accidental wounds, which form the bulk of our practice, are frequently not brought under our notice till long after they have been inflicted. They vary in degree and in kind as much as they do in position. The smallest incised wounds and the most complex injuries come under our notice at all stages—sometimes quite recent, at others after days of the grossest mal-treatment.

Before considering these it will perhaps be more convenient to consider those surgical wounds which we deliberately make and which we have, to some extent, under our control from start to finish.

In castration and spaying we have examples of wounds inflicted on important structures, and it is worth noting how seldom they are followed by any dangerous complications. Probably no one ever saw them done under strict aseptic rules, and yet what evils have we ever traced to germs in them. No wounds are supposed to be more dangerous than those opening into the abdomen. Thousands of pigs are every year laid on their backs, an opening made into the abdomen, a finger inserted, the ovaries pulled out and removed, the wound stitched up and not one single antiseptsc precaution taken either with the patient's skin, the operator's hands, or his knife and sutures. The fatality is not one per cent.

Colts, calves, lambs, and cats are castrated by the thousand without the least care for germs—and how many die? The per-centage of loss could only be stated in fractions. Then look at the tumours that are removed with no aseptic precautions. Healing by first intention is common enough, and when absent may generally be easily accounted for without any supposition that micro-organisms have prevented it.

In the case of spaying, although no antiseptic precautions are taken, there is one condition always observed by the most successful operators, viz., withholding food for twenty-four hours previously and for some time after. My own small experience leads me to believe that this is a most important detail, though I can offer no explanation as to its action.

In the case of castration nearly all our losses are *traceable* to two causes—hæmorrhage and swelling. The first I think is only the result of negligent surgery, and the latter never results except when the animal is tied up and prevented from moving about.

In the case of tumours we fail to obtain healing by first intention, or by adhesion as the result of one or two very simple conditions. Perhaps I had better say here that I recognise no difference in the processes described as "first intention" and "adhesion." They are essentially the same, and consist in the union of the sides or lips of a wound without granulations or without any new tissues, being formed between them. When a tumour is large its removal leaves a wide gap in the tissues, and it may be impossible to approximate the two cut surfaces without considerable stretching. Of course if they do not approximate they cannot adhere. When stretching is great the sutures may "cut out" and the wound gape, or the animal may rub them out. The cause of non-union is the purely mechanical one of want of contact. The shape of the wound made may also be a cause of failure. No one can bring the surfaces of a basin-shaped wound into complete and equal apposition, it must be elongated at the expense of some sound tissue at each end and then we obtain two nearly flat surfaces which may be properly brought together with tolerably even tension throughout. Another cause of failure to obtain adhesion is too great haste to finish the operation, resulting in blood being left in the wound. All vessels should be tied or twisted and capillary oozing checked by cold water and sponging. The very best results follow when the wound is allowed to become nearly dry before being closed.

Some years ago a pony was brought to me with a wound on the alœ-nasi. A hook had penetrated the alœ, the pony ran back and tore it out leaving the two sides separated for nearly three inches. A farrier had, two or three days before I saw it, sewn it up with four string stitches, but these had given way leaving the edges of the wound dry, thickened, and not united anywhere. I cast the pony with the only available tackle (a cart rope) and pared a thin slice from each lip of the wound. At this stage the pony by struggling got so loose that I was obliged to let him up and re-cast him. I remember thinking my re-vivified edges would get dry and that the delay would spoil the operation. The wound was closed with pin sutures and the patient was to have been brought back in three days for inspection. I did not see it till the seventh day when the owner was passing. Every pin had cut itself out leaving a transverse line and the wound was healed throughout. A few months after no trace of the injury was visible. This first taught me never to hurry, but to wait until bleeding ceased and to expect the best results from closing a wound when the surfaces showed no blood, but only that glazed condition due to exudation of lymph.

Another instructive case I venture to relate. A gray horse at grass was found one morning with a tranverse wound across his ribs. It was a clean cut and was thought to have been maliciously done with a knife. It was just over two feet in length and gaped at its widest part about nine inches. The tissues were very mobile, not a drop of blood was in the wound, but it had one nasty feature which I thought might give trouble. The muscular tissue under the skin was cut through and the muscle had retracted. When the parts were put together just to see how they met it was found that the incision in the skin was at a level three inches higher than that in the muscle. Waxed linen thread was used to close the muscle-wound and the ends of each suture brought out of the skin wound. The skin was brought together with pins. In six days most of the pins had cut out, one of the thread sutures was gone, and adhesion had taken place throughout. The wound sloped downwards posteriorly and at its extremity a small abscess the size of a walnut had

formed; this was opened and healed rapidly.

When I saw this wound it had been done four hours at least and possibly seven or eight. Exposure to the air had done it no harm. Whatever organisms existed in the air must have been very harmless or we could not have had such an extensive surface heal at once by adhesion. In this case too, like the other, all bleeding had ceased and we had the condition which I consider most favourable to rapid union. This patient I have said was in a field, and it may with much force be argued that the air surrounding him would be the least likely to contain any injurious organisms. The air in stables does not of itself seem injurious to wounds. We all have seen cases in which an incision or tear of the skin inside the elbow has been followed by emphysema to such an extent as to distend the skin and subcutaneous connective tissue all over the region of the neck, shoulder and part of the thorax. Such cases, with no aseptic treatment, soon recover, and I never saw the slightest untoward symptom result.

The healing of wounds made in the operation of Neurotomy teaches us at least two points. A few years ago these wounds were treated by wet bandaging, and no healing by adhesion ever resulted. The openings gaped, and were filled up by granulation to such an extent that in most cases very evident scars were left. Now that dry dressings are resorted to, healing is very rapid, and blemishes, if even they exist, are very small.

In my experience the worst complication we meet with is swelling of the legs. This effectually prevents all healing by adhesion, and very often causes the wounds to gape and discharge for a long time. All wounds on the lower part of horses' legs may meet with this great disadvantage. Swelled legs are most common, and one great cause is tying the animal up in a stall. With wounds on legs we naturally desire to avoid the stretching effects of motion and the still more forcible injuries resulting from the animal lying down. We try to prevent these by tying it up and then we incur the equally great disadvantage of swelling. In fact, I think swelling of legs which are wounded is the greatest interference we have to fear, and, unless the wound be directly over a joint, I always advise a loose-box. No treatment of wounds of the extremities can be very successful which does not guard against swelling or, should it exist, which does not at once endeavour to remove it. Perhaps in no case is the retarding effect of swelled legs upon a wound better seen than in ordinary cracked heels. If the skin be thickened by exudation in it and under it no treatment seems effective in promoting healing. If we reduce the swelling—and nothing does this so well as exercise—healing at once sets in and progresses favourably.

So far my remarks have been suggested chiefly by my experience of incised wounds, and the lesson I think they teach is that we need not alarm ourselves about the possibility of septic infection. If we obtain healing by first intention or adhesion we shall certainly have no septic trouble. We can, I hold, get this by a few ordinary precautions.

1.—Do not close the wound until bleeding has ceased, and if necessary wait a few hours for this. In many cases although a little oozing of blood is still proceeding the mere pressure of bringing together and retaining the cut surfaces will check further flow.
2.—Shape your wound so that no cavities are formed by the two surfaces not being in contact.
3.—Let the coaptation of the surfaces of a wound be as exact as possible.
4.—Secure them firmly and closely.
5.—Avoid all heat and moisture.
6.—Anticipate and prevent swelling.

The fifth precaution—avoid all heat and moisture—is the one which I say used to be neglected in Neurotomy when wet bandages were used. Now this is the great objection I have to most methods of applying aseptic or antiseptic treatment. You cannot retain dressings on a wound unless they are kept in a position by cloths or bandages, and nearly all dressings are liquid. Immediately you wrap a wound up you keep it warm and moist, and this is a condition amongst the worst for rapid adhesion. It is perhaps argued that heat and moisture are only evils to a wound because they favour the activity and increase of micro-organisms, and that if the part be kept surrounded by antiseptics no organisms can exist. I believe that heat and moisture are bad in themselves, that they injuriously affect the nutritive changes of the part, and damage the physiological process of healing. When we, by retaining heat and moisture around a wound, form just the very best state for the existence and growth of organisms, we must use our antiseptic dressings of as great strength as the risk of poisoning will allow. Now many of these dressings that are strong enough to kill outside organisms are also strong enough to kill the living cells without which repair cannot go on.

Such risks are warrantable in an atmosphere where septic infection is known to exist, but I do not think that in veterinary practice our patients or their surroundings are in a condition to require any course of treatment for wounds which entails so many disadvantages, and which in practice is shown so generally to be unnecessary.

I may perhaps here be allowed to say a few words as to the best methods of closing wounds. I have tried many kinds of sutures but for some years past have used nothing but pins and skewers, with a figure of eight twist of cotton cord round them to hold the lips of the wound in apposition. I do not have them made of steel as that metal rusts. I use ordinary blanket-pins varying in length from two to three inches for most wounds, ordinary small pins for the smaller wounds, and kitchen skewers (tinned or galvanised) for the largest. All pins are now tinned and leave a wound after a week or more quite bright. When they are in position I remove the points with a pair of cutting forceps. Pins do not cut out so quickly as wire sutures, and are quite innocuous in a wound. When I find a pin cutting itself out too rapidly I place a larger one alongside of it and remove the first one. In large wounds it is advisable to take a very wide hold of the tissue—

perhaps two inches from the edge of the wound. In such cases I always put small pins through the immediate edge to prevent any gaping.

The accidental wounds which come to us for treatment present greater difficulties than the clean incised wounds we make ourselves. They are often bruised or torn, sometimes masses of skin or other tissue are removed, and not unfrequently their form or position renders it unadvisable to close them at once. Some of the very worst wounds we see are in cases of broken knees—a large portion of skin is entirely removed, the surrounding tissues are bruised, the denuded structures are torn and jagged, whilst grit and dirt is literally rubbed into their structure. We may be certain that a great deal of swelling will follow, movement makes them worse and a synovial discharge may come from the sheath of the extensor metacarpi, or even from the joint itself. In such a case what is the best procedure? I hold that the safest practice is to make up your mind what is the worst complication likely to arise and set to work to anticipate it. We may perhaps decide that intense inflammatory action will arise and cause the wound, which at present has not opened any synovial cavity, to be complicated by an escape of synovia. For such cases I employ continued cold water irrigation. When bruising, pain, and swelling are the most to be feared I trust in warm water. When the injury is more superficial I use carbolised oil.

There is a position where wounds in my experience are specially liable to have no depending orifice and in which exuded fluids are prone to collect, *i.e.*, just in front and below the angle of the ileum. Tears and cuts in this region, even if the agent causing them does not penetrate downwards, are liable to form sacs owing to the looseness of the tissues allowing fluids to gravitate between them. Without a depending orifice be made they heal badly, and I need hardly say should never be sewn up.

In muscular regions of the body, lacerated wounds often so damage tissues that it is important before closing them to form a correct opinion as to vitality of the parts. Shreds of tissue may be so isolated or crushed as to have no chance of reviving. Should they die in the closed wound, healing is impossible. Such damaged portions should be removed with as great care as clots of blood or distinct foreign bodies. I remove them usually with scissors, and snip off piece after piece until I make a cut from which blood flows. So long as no bleeding follows a cut I consider the tissue incapable of restoration. Perhaps I should make an exception in favour of skin. I never remove strips of torn skin from a recent wound but carefully replace them in the best position I can. Even if they do not adhere, they are a protection, and can be cut away when their non-vitality is quite assured.

With accidental wounds then we have further conditions which interfere with the healing process. We have the probability of portions of dead tissue or of such injury to structures that their recovery is impossible. We have cavities which can only be filled up by granulations, and which may retain collections of fluid. We have the formation of pus which need not be feared so long as it remains normal. We have in fact conditions where septic infection is to be feared. It is when we have fluids in a wound that organisms become mischievous. Serum, blood, pus, if allowed to collect are dangerous. They must be allowed to escape, and when we cannot get rid of them as quickly as they are formed we use disinfectants to prevent them becoming septic. Agents that are dry I prefer, such as powdered boracid acid or mixtures containing iodoform, or corrosive sublimate, or salicylic acid. Next to these I like antiseptics dissolved in oil. Of course to wash out large cavities aqueous solutions must be employed; and no agent gives better results than permanganate of potass.

Extremes of heat and cold add to the difficulties of treating wounds. In India we are told that septic infection is greatly to be feared. In Canada during the winter months injured parts die rapidly from the cold, and wounds of the extremities are especially dangerous. In this climate we have not much to fear from the unfreqent extremes of temperature, but we must not lose sight of the fact that cracked heels are chiefly of the nature of chilblains, and that in winter, wounds below the knee and hock may well be protected by some non-conducting covering —flannel bandages and cotton wool for choice.

Now, gentlemen, I have, I think, said enough to initiate a good discussion. The chief point I insist on is that careful detail is, in the treatment of wounds as in every other operation, the most important factor to ensure success. I am open to correction if I have formed an erroneous view of the danger of septic infection. I hold we should, whenever practicable, endeavour to obtain healing by first intention, and that our observations should be directed to detecting what retards and what facilitates that process. I am not at present inclined to allow that promiscuous organisms do much harm to wounds, and I do not think we find many special organisms with infective properties in the conditions which surround the lower animals. If this be so we need not adopt all the tiresome minutiæ of aseptic surgery, and we need not allow the absolute impossibility of applying it in many cases to cause us any vain regrets. On the other hand, if I am wrong I shall conscientiously revise my surgical practice.

Mr. Peter Taylor opened the discussion by extending to the essayist his warmest thanks for coming so far and reading them so good a paper. He did not however agree with it all, and he missed from it much that he should like to have heard discussed —notably, the treatment of wounds of the foot. He confessed that the treatment of wounds had much advanced since his early days. He thought they were deeply indepted to Lister for his great work, and he should not lightly coincide with the essayist in disapproving of it. There were two distinct methods of treating wounds—the dry and the wet treatment, but both had for their basis asepticism. He noticed that Mr. Hunting did not believe in germs, but he used carbolic and boracic acids.—Why?

The treatment of simple wounds was an easy matter, but wounds of the thorax and abdomen were

always serious, and some of them simply frightful. It was in these cases the practitioner required all his skill and every assistance that science could offer.

Mr. Taylor related cases which he had seen, and described fully a case in which he had to cast a horse and with great difficulty return a mass of protruding intestine; the wound was sewn up and merely dressed with Friar's balsam, but to his astonishment it made a perfect recovery.

Mr. Greaves had had considerable experience in the treatment of all sorts of wounds, and came to the conclusion that the majority did best under an antiseptic dry treatment. He felt certain Mr. Hunting was correct in his ideas but he knew some practitioners who treated broken knees with nothing but cold water and they claimed to be very successful. He used mild astringents, and lately had largely employed corrosive sublimate in solution, which he found to be an excellent disinfectant. He had been much pleased with the scientific and practical paper, the general principles in which he endorsed.

Mr. Whittle had also been much gratified in listening to the paper. He agreed with the treatment there laid down and would like to see the author more often amongst them.

Mr. Edwards said it was his practice to treat wounds very simply. He related two cases of wounds penetrating the thorax, in each of which the injured parts felt icy cold, and the patient soon died. He would like to know what was the significance of this cold feeling? He did not much believe in stitching up flesh wounds. He found they healed up well when let alone and gradually contracted to their proper form. He never adopted warm fomentations to wounds, and generally used boracic acid or a solution of Ol. Eucalypti applied with a feather.

Mr Dacre had been very much interested in Mr. Hunting's paper, with which, on the whole, he agreed. He considered that too much was often done to wounds. He used sublimated wood wool as dressing, and related a case of a dog whose foot was run over and crushed. The treatment consisted in wrapping it up in the wood wool, and recovery took place without a bad symptom. The parts were excluded from the air and the dressing was perfectly absorbent and antiseptic. He had had most successful results in cases of extensive injuries on horses by keeping the part covered by a carbolised curtain, which was a method of keeping the wound and the air surrounding it free from any septic evils.

Mr. J. T. Thompson confirmed the value of the treatment suggested by the essayist. He, however, believed in poulticing foot cases, as great relief was given by the softening of the horn.

Mr Alson recommended the use of Iodoform which in his practice had given very good results.

Mr. Briggs thought antiseptics were of great value in wounds of serous cavities, and pointed to the grand results achieved in the human subject in abdominal surgery—results he thought unattainable until the aseptic methods were introduced. He felt a little disappointed that Mr. Hunting had not touched upon fistulous wounds which were so common in veterinary practice and so often unsatisfactory in their termination.

Mr. W. A. Taylor remarked on the wounds produced by castration, and differed from Mr. Hunting as to the cause of death. Neither hæmorrhage nor swelling, in his experience, were causes, but septic peritonitis was. He had confidence in asepticism and adopted it as a surgical principle. He would just add that he considered the dragging of muscle which was entailed by using deep sutures in some wounds a great evil. When parts could be approximated without stretching the tissues he brought them together, but not unless.

Mr. Hopkin did not altogether coincide with Mr. Hunting's opinion of antiseptic surgery. The operations now performed by human surgeons as reported every week in the medical journals were simply appalling. Their success was due to the careful antiseptic precautions taken, and would have been impossible in the days before Listerism had been accepted. He agreed with the previous speaker that septic peritonitis was the cause of deaths following castration. Old castrators were most careful with their hands and instruments to avoid all contaminations. As to the operation of neurotomy he avoided all the difficulties of treatment by sending the animal at once to work. The wounds then healed well and rapidly, and no swelled legs arose to intertere with the healing process. As to heat and moisture, they were bad for healing by adhesion, but they were useful promoters of granulation. Mr. Hopkin also referred to abdominal wounds and burns, the latter of which were most difficult and troublesome.

Mr. G. Mayor said that if Mr. Hunting were wrong he erred in good company for Mr. Lawson Tait and the late Mr. Sampson Gamgee did not adopt any rigid aseptic rules in their surgery, but both were most successful surgeons, in fact Mr. Tait probably had no equal as a practitioner of abdominal surgery. He related a case of an upper eyelid of a horse which was nearly torn off, but which when sutured in its place made a perfect recovery. This he thought was due to it having been closed in the condition referred to by Mr. Hunting—after all bleeding had ceased and the surfaces covered by a mere coating of lymph.

Mr. Woods Junr., thought that there was a danger of revulsion against asepticsm, which however must be acknowledged as an important principle. He thought that a safe rule in the treatment of wounds was to decide what beneficial termination appeared nearest, and then to endeavour to attain it.

Mr. Hunting in reply thanked the members for the way in which they had discussed the subject. He had not meant to deny altogether the value of antiseptic treatment. He objected chiefly to those methods of employing it which necessitated the injured part being kept hot and moist by wrappings, and he wished to protest against it being accepted as more important than many details which assisted in promoting healing. He believed that all collections of fluids, either blood, serum, or water, should be

prevented accumulating in or around a wound, and that without them no germs need be feared. Of course if we knew of the existence in or about a wound of septic conditions we must remove them or render them inert. He then rapidly and sometimes humorously replied to each speaker who had suggested objections to his paper, pointing out that it must necessarily be very incomplete. The subject was too large for exhaustive treatment, he only attempted to touch the broad principles and to attract a good discussion.

Proposed by Mr. P. Taylor, seconded by Mr. T. Greaves, that a very cordial vote of thanks be accorded Mr. Hunting for coming such a distance to render them such service and for the very excellent character of his paper. Carried unanimously.

The usual vote of thanks to the President terminated a very successful meeting.

ARTHUR LEATHER, *Hon. Sec.*

Royal College of Veterinary Surgeons.

NEW MEMBERS OF THE PROFESSION.

At a meeting of the Court of Examiaers of the Royal College of Veterinary Surgeons, held in London on and between 17th and 20th Dec., 1889, the following students from the Royal Veterinary College passed their Oral and Practical Examination, and were admitted Members of the Profession :—

Mr. N. W. Galward
„ R. C. Bullen
„ A. H. Sugden
„ W. B. Gridley
„ H. S. Eglington
„ E. C. Storey
„ R. Halpin
„ W. A. Stainton
„ S. J. Williams
Mr. J. B. Dier
„ C. C. Nesling
„ J. J. Brown
„ E. R. Edwards
„ J. F. B. Moody
„ H. H. Hide
„ P. W. Creagh
„ A. Perkins

The following passed their Second Examination :

Mr. G. Upton
„ D. C. Clinchy
„ J. W. Hopkins
° „ T. N. Davis
„ G. A. Wickett
° „ H. A. Pattison
„ J. R. Robins
° „ R. E. Taylor
„ S. Bennett
„ R. Forshaw
„ E. W. Bovett
„ G. S. Thomas
„ J. E. Tooth
Mr. E. B. Robinson
„ J. H. Skelton
„ H. W. Leech
„ T. F. Prime
„ P. Easte
„ F. W. Garnett
„ T. W. Hindle
° „ P. Perkins
„ H. H. Truman
„ R. Wilks
„ W. Scales
„ H. Sharpen

The following passed their First Examination :

Mr. G. W. Chater
„ E. W. Morris
„ W. Lindley
„ H. Green
„ P. B. Godfray
Mr. H. C. Welch
° „ A. Stevens
„ E. J. Thorburn
„ A. E. Oliver
° „ F. W. Smith
Mr. J. Osborne
„ J. T. Priestner
„ S. A. Nye
„ W. G. Pakeman
„ A. E. Prudames
„ H. Bidlake
„ R. W. Cooper
Mr. A. J. Lane
„ H. E. Taylor
„ G. S. Harris
„ F. W. Evans
„ J. C. Everest
„ E. P. Barry

Marked thus ° passed with great credit.

ARTHUR W. H. HILL, *Secretary.*

NEW VETERINARY COLLEGE.

At the recent examination held by the Board of Examiners of the Royal College of Veterinary Surgeons in Edinburgh. The following students from the above College, passed the theoretical portion of the final examination :—

Messrs. Cosgrove, Franklin, Westgate, Dale, Dotchin, M'Gregor, T. Eastwood, Isherwood, Hughes, Stephenson, Radcliffe, Wilson, M'Laren, Edwards, and Snarry.

The following have passed the practical portion and obtained the diploma of membership :—

Messrs. Schofield, Young, Scoon Barraclough, Donaldson, Franklin, Dale, Dotchin, M'Gregor, T. Eastwood, Hughes, Stephenson, Radcliffe, M'Laren, Edwards and Snarry.

The following gentlemen have passed the second professional examination :—

Messrs. Norbury, ° Bushnell, White, Senior, Sayles, Ducksbury, Brown, ° Richardson, Lett, ° Dalgleish Towers.

The following gentlemen passed the first professional examination :—

Messrs. Lund, Gould, Taylor, Balfour, Martin, Blakemore, Carroll, Sime, Lyons, Lanchester, Fraser, Patrick, and Dawson. ° Great credit.

ROYAL (DICK) VETERINARY COLLEGE

The following students from the Royal (Dick's) Veterinary College passed in their respective classes :

Class C, Theoretical Division—Messrs. °J. Peddie, Edinburgh; J. Bell, Gatesgill, Carlisle; °W. M'Quatt, Kirkconnell, Dumfries; °C. E. Gray, Port bello; G. Sinclair, Bathgate; C. Deathe, Ireland; W. Potts, Ireland; R. Milne, Cupar-Fife; J. E. Miller, Sunderland; T. W. Rogers, Welshpool, N.W.; G. Henderson, Edinburgh; W. A. Young, Ireland; and W. H. S. Day, Crewe.

Class C, Practical Division—Messrs. C. Wade, Liverpool; Peddie, Bell, M'Quatt, Deathe, Potts, Miller, Rogers, Henderson, Young, and Day.

Class B—Messrs. Squire, Cureton, Condon, Nolans, Best, Clark, Foreman, Mitchell, and Carroll.

Class A—Messrs. Knight, Finlkes, Smyth, Shaw, Jones, Hines, Elder, Ritchie, Mallon, and Durie.

° Great credit.

GLASGOW VETERINARY COLLEGE.

The Christmas examinations of the Royal College of Veterinary Surgeons were conducted within this institution on the 12th and 16th inst.

The following gentlemen passed the first (or theoretical) part of the final examinations :—

Messrs. T. Gorecki, Glasgow; W. Welsh, Glasgow; H. Potts, *Glasgow; James M'Dougall, Helensburgh, Dumbartonshire, and C. J. Dunn, Glasgow. The following gentlemen passed the second (or practical) part of the final examination, and succeeded in obtaining the diploma of the Royal College of Veterinary Surgeons :— Messrs. *H. Potts, James M'Dougall, and C. J. Dunn.

The following students passed the "B" or second professional examinations, viz. :—

John Meikle, Stranraer, Wigtownshire; F. J. Boyle, Ballymoney, Co. Antrim; A Milligan, Dalbeattie, *Kirkcudbrightshire; and R. P. H. Dalglish, Govanhill, *Glasgow.

The following students passed their "A" or first professional examinations, viz. :—

H. M'Connell, Armagh; H. L. Chambers, Ballynahinch, Co. Down; A. P. Stewart, Dennistoun, Glasgow; R. Mason, Glasgow; H. A. Hazeel, Dunoon, Argyllshire; W. Crowley, Tullagower, Co. Clare: D. P. Harvey, Pollokshields, Glasgow; and F. T. Barton, Glasgow.

* Great credit.

GOVERNMENT VETY. DEPARTMENT.

CONTAGIOUS DISEASES IN ANIMALS.

Reported in Great Britain and Ireland during the week ended December 14th, 1889.

Pleuro-pneumonia.—There were 8 fresh outbreaks of this disease reported in Great Britain during the week, 3 of these were in England, in the counties of Cumberland, London, and Norfolk: the 5 in Scotland occurred in the counties of Aberdeen, Edinburgh, Forfar, and Stirling. The number of cattle attacked was 25, viz., 11 in England and 14 in Scotland. In addition to these, 136 healthy cattle exposed to infection were slaughtered. In Ireland 1 fresh outbreak of pleuro-pneumonia occurred in the Rathdown Union, Co. Dublin, and 1 animal only was attacked.

Anthrax.—During the week 4 fresh outbreaks of anthrax were reported in Great Britain, 3 in England, in the counties of Northampton and East Sussex, and 1 in Scotland in Forfarshire, 5 animals were attacked and 3 remained diseased from the preceding week. Of these 5 died, 2 recovered, and 1 was alive when the week's returns were made up. In Ireland 2 fresh outbreaks of anthrax occurred in Co. Kerry, 4 animals were attacked, all of which died.

Swine-Fever.—The returns relating to this disease still continue much below what they were about a year ago, only 63 outbreaks were reported in the week, whereas in the corresponding week of last year there were 96 outbreaks. The number of pigs attacked was 323: 201 diseased pigs were killed, 121 died, 41 recovered, and 285 remained alive at the end of the week. In Ireland only 2 outbreaks of swine-fever occurred during the week, and 3 swine were attacked.

Glanders and Farcy.—In England 14 fresh outbreaks of glanders were reported, 12 in London and 2 in Middlesex. 22 horses were attacked, viz: 17 in London, 2 in Middlesex, and 3 in Lanark. There were 11 outbreaks of farcy in the week, 10 of them in London, and 1 in Essex; of the 16 horses attacked 15 were in London and 1 in Essex. No case of either glanders or farcy was reported in Ireland during the week.

Rabies.—In England there were 6 cases of rabies, all in dogs, reported in the counties of Essex, Kent, London, and York (W.R.). In Ireland 4 fresh cases of rabies were reported, 2 in dogs in Carlow and Westmeath, 1 horse in Longford, and 1 head of cattle in Galway.

CORRESPONDENCE.

Communications for the Editor to be addressed 20 Fulham Road, S.W.

Original articles and reports should be written on one side only of the paper, and authenticated by the names and addresses of the writers, not necessarily for publication.

We shall be obliged by early intelligence of all matters worth bringing under the notice of the profession, and thankful to any friends who may send us cuttings from local papers, containing facts of interest.

VETERINARY PUPILS.

SIR,

After reading the venomous effusion by "Well-wisher" in to-day's *Record* I am forced to the conclusion that his *nom de plume* is a misnomer. He gets poetical, and he might have finished his quotation "If poverty be no crime it is a curse that in this cruel world is harder far to bear." I admit we students are not all born to fortune, but at the same time hold that not one of my college chums would reach that goal through serving "Well-wisher."

I have acted as pupil now for two years, and in that time I have had quite my share of manual work, which was done cheerily and ungrudgingly, and my services were ever accepted encouragingly. Another pupil is in the same service at present, and he can fully corroborate this statement. In that time no property has been destroyed, no instrument has been lost, and no mistakes made, as our superior was ever in touch with his work and prevented such. We see lots of practice, and don't copy the recipes, as we prefer treating cases on their merits and not empirically. I am thoroughly convinced that if "Well-wisher's" students were satisfied with their superior they would not think of changing.

I mean to start practice when I get my diploma, and I presume all others do. I have not a fortune at my disposal, but if "Well-wisher" could only look around he would see some of the best men in our profession who had started under similar circumstances. I am not surprised that your correspondent talks of becoming a hosier if he considers that calling representative of mental littleness; as he is a member of an honourable profession I think he might contribute to its literature something more worthy than sweeping charges against those about to enter it; sheltering himself meanwhile behind the disguise of a *nom de plume*.

Dec. 21. A GLASGOW STUDENT.